

Abstract

The present invention provides a voltage clamping circuit which is operated in a stable manner with the simple constitution and a switching power source device which enables a high-speed operation. In a switching power source device, one of source/drain routes is connected to an input terminal to which an input voltage is supplied, a predetermined voltage to be restricted is supplied to a gate, and using a MOSFET which provides a current source between another source/drain route and a ground potential of the circuit, a clamp output voltage which corresponds to the input voltage is obtained from another source/drain route. The switching power source device further includes a first switching element which controls a current which is made to flow in an inductor such that the output voltage assumes a predetermined voltage and a second switching element which clamps an reverse electromotive voltage generated in the inductor when the first switching element is turned off to a predetermined potential. In such a switching power source device, the voltage clamping circuit is used in a feedback route for setting a dead time.